



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,688	07/18/2003	Tetsuya Kida	1508.68156	3620

7590 12/01/2004
Patrick G. Burns, Esq.
GREER, BURNS & CRAIN, LTD.
Suite 2500
300 South Wacker Dr.
Chicago, IL 60606

EXAMINER

KIM, RICHARD H

ART UNIT	PAPER NUMBER
----------	--------------

2871

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/622,688

Applicant(s)

KIDA ET AL.

Examiner

Richard H Kim

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/18/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 5 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by admitted prior art (AAPA).

Referring to claim 1, AAPA discloses a method comprising the steps of forming a plurality of main seal patterns (Fig. 4B, ref. 96) and dummy seal patterns (Fig. 4B, ref. 98) on one of the pair of substrates by a sealant, the main seal patterns individually enclosing each of the plurality of display areas, and the dummy seal patterns individually enclosing each of the plurality of main seal patterns and all sides of the dummy seal patterns facing sides of the one substrate being interconnected (Fig. 4B, ref. 96, 98); dropping liquid crystals on one of the pair of the substrates (specs, page 3, lines 9-15); bonding the pair of the substrates in a vacuum

Art Unit: 2871

atmosphere by the sealant the constitutes the main seal patterns and the dummy seal patterns (Fig. 2B); and curing the sealant which constitutes the main seal patterns and the dummy seal patterns (Fig. 2D).

Referring to claim 5, AAPA disclose that ultraviolet curing sealant is used as the sealant (specifications, page 4, lines 14-15).

Referring to claim 6, AAPA discloses spacers for maintaining uniform cell gaps are provided on one of the substrates (specifications, page 4, lines 4-7).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art (AAPA) in view of Park et al. (US 6,738,124 B2).

Referring to claim 2, AAPA discloses the method previously recited, and further discloses that the dummy seal patterns comprise a plurality of first dummy seal patterns which individually enclose each of the plurality of main seal patterns (Fig. 4B, ref. 98), but fails to disclose a second dummy seal pattern which encloses all the plurality of first dummy seal patterns.

Art Unit: 2871

Park et al. discloses a dummy seal pattern which encloses all the plurality of seal patterns (Fig. 4B, ref. 800).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a second dummy seal pattern which encloses all the plurality of first dummy seal patterns since one would be motivated to protect the other sealants enclosed by the second dummy sealant (col. 2, lines 8-9). Furthermore, even though the secondary reference only discloses a single dummy sealant (800), in light of the motivation add protection to the inner sealants, an artisan of ordinary skill in the art would have been motivated to modify the AAPA to include the second dummy sealant since providing a sealant to encompass the main sealant as well as the first dummy sealant would provide protection to those sealants.

Referring to claim 3, AAPA and Park et al. disclose the method previously recited, but fails to disclose that the interval between the main seal patterns and the first dummy seal patterns is larger than an interval between the first dummy seal patterns and the second dummy seal patterns.

It would have been obvious to one having ordinary skill in the art at the time the invention was made for the interval between the main seal patterns and the first dummy seal patterns to be larger than an interval between the first dummy seal patterns and the second dummy seal patterns since one would be motivated to account for the spatial limitations of the substrate.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA.

Art Unit: 2871

AAPA discloses the device previously recited, but fails to disclose domain restricting protrusions provided on at least one of the pair of substrates.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ disclose domain restricting protrusions provided on at least one of the pair of substrates since domain restricting protrusions are well known in the art for multi-domain liquid crystal displays.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art (AAPA) in view of Katsura (US 20010015786 A1).

AAPA discloses the device previously recited, but fails to disclose a plurality of second dummy seal patterns which individually interconnect between sides of the first dummy seal patterns facing sides of the one substrate.

Katsura discloses an interconnect between sides of sealing patterns (paragraph 24 and 25).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ second dummy seal patterns which individually interconnect between sides of the first dummy seal patterns facing sides of the one substrate since one would be motivated to prevent liquid crystal wraparound (abstract).

Art Unit: 2871

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard H Kim whose telephone number is (571)272-2294. The examiner can normally be reached on 9:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H Kim can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard H Kim
Examiner
Art Unit 2871

RHK


TARIFUR R. CHOWDHURY
PRIMARY EXAMINER